

Australian Hotels Association, representing licensed premises and some restaurants. Information from Healthy Buildings International, an organisation with strong ties to the tobacco industry,<sup>2</sup> was much in evidence.

When the ACT Government proposed its legislation, it did so in the belief that it was only a matter of time before other jurisdictions would adopt a legislative basis for smoke-free public places. Whether, when, and how this happens will depend on the success of the Australian public health community in presenting the issues in a way that is informative and persuasive to the media, the public, and elected representatives.

MARGO GOODIN  
Department of Health and Community Care  
Australian Capital Territory  
Canberra ACT 2601  
Australia

- 1 McAllister I. Public opinion in Australia on restricting smoking in public places. *Tobacco Control* 1995; 4: 30-5.
- 2 Levin M. Who's behind the building doctor? Secondhand smoke. *The Nation* 1993 (August 9); 257(5): 168.

#### Adolescent use of cigarette vending machines

*To the Editor*—Public health officials have focused attention on the nature and extent of youth access to tobacco products in the United States.<sup>1</sup> Studies have clearly shown that minors can purchase cigarettes unfettered.<sup>2</sup> While model legislation calls for comprehensive measures to thwart youth access to tobacco,<sup>3</sup> many communities have initially focused on regulating cigarette vending machines.

Tobacco control advocates, as well as the tobacco industry and retailers, recognise that a small percentage of youth tobacco sales is through vending machines. However, vending machines should be cause for concern because of their ubiquitous nature.

A highly publicised mall intercept survey commissioned by the National Automatic Merchandising Association (NAMA) found that teenagers (13-17 years old) generally used over-the-counter sources for purchasing cigarettes.<sup>4</sup> Upon closer reading of the NAMA results, one sees that the younger the youth, the more likely will they be to use a cigarette vending machine. The survey showed that 13 year old smokers were 11 times more likely to use a vending machine than 17 year olds.

In the spring of 1993, more than 60000 students in grades seven, nine, and 12 (12-18 years old) participated in the Pennsylvania tobacco survey for students, which was conducted for the Pennsylvania Department of Health.<sup>5</sup> Using a 121 item self-completed questionnaire, administered in a classroom setting, this research aimed to collect baseline data about youth behaviour patterns and attitudes about cigarettes and smokeless tobacco. These students came from a stratified random sample of 371 public and non-public schools. Care was given to the proportional representation of the geographic, ethnic, gender, economic, and grade composition of the state. A total of 60778 students was surveyed, including a random sample of 55563 students and an oversampling of 5215 students in various target

areas. After excluding the oversampled respondents and unusable questionnaires, the population on which our results are based is 54741 students.

Our study confirms the finding that the younger the adolescent, the more likely that they will use a cigarette vending machine rather than over-the-counter sources (that is, convenience stores, gas stations, supermarkets, or pharmacies). Seventh graders (12 to 13 year olds) were 2.2 times more likely to "perceive" vending machines as the easiest place to buy cigarettes than ninth graders (95% confidence interval [CI] = 2.1 to 2.3). Seventh graders were 6.6 times more likely to "perceive" vending machines as the easiest place to buy cigarettes than 12th graders (95% CI = 6.3 to 7.0).

When students were asked on a multiple response question where they actually bought cigarettes, the younger students were more likely to cite vending machines as a source. Seventh graders were 1.5 times more likely to buy cigarettes from a vending machine than ninth graders (95% CI = 1.4 to 1.7). Seventh graders were 2.6 times more likely to buy cigarettes from a vending machine than 12th graders (95% CI = 2.3 to 2.8). A Pearson's  $\chi^2$  test with one degree of freedom found each of these comparisons to be highly significant ( $p < 0.001$ ).

While the overall volume of cigarette sales to minors from vending machines is much smaller than from over-the-counter sales, the younger, experimental smoker is at greater risk of purchasing from a cigarette vending machine. Tobacco control groups should be aware of this risk to such a vulnerable target audience and should adjust their educational programmes and policies accordingly.

STEPHEN F GAMBESCIA  
American Heart Association  
Southeastern Pennsylvania Affiliate  
Conshohocken, PA 19428-1190, USA

- 1 US Department of Health and Human Services. *Youth access to cigarettes*. New York: US Department of Health and Human Services, Office of Inspector General, Office of Evaluation and Inspections, 1990. (Publication No OEI-02-90-02310.)
- 2 Altman DG, Rasenick-Douss L, Foster V, Tye J. Sustained effects of an educational program to reduce tobacco sales to minors. *Am J Public Health* 1991; 81: 891-3.
- 3 US Department of Health and Human Services. *Model Sale of Tobacco Products to Minors Control Act: a model law recommended for adoption by states or localities to prevent the sale of tobacco products to minors*. Washington, DC: US Department of Health and Human Services; 24 May 1990.
- 4 Response Research Inc. *Findings for the study of teenage cigarette smoking and purchase behavior*. For the National Automatic Merchandising Association. Chicago, Illinois: Response Research Inc, 1989.
- 5 Pennsylvania Department of Health. *Tobacco and Pennsylvania's students: the 1993 survey*. Harrisburg, PA: Pennsylvania Department of Health, 1994.

#### Son of Premier

*To the Editor*—In 1988, the RJ Reynolds Tobacco Company (RJR) introduced a unique cigarette product called *Premier*.<sup>1</sup> This product was unique because, unlike conventional cigarettes, *Premier* heated rather than burned tobacco, thereby significantly reducing tar yields. In October 1988, RJR began test marketing *Premier* in two

American cities (Phoenix, Arizona, and St Louis, Missouri). However, it did not sell well in these cities and was removed from the market in February 1989.

The concept of a smokeless tobacco product, however, did not die with *Premier*. On 27 November 1994, a *New York Times* article revealed that RJR was testing a second generation of "smokeless cigarettes" called *Eclipse*.<sup>2</sup> Like *Premier*, *Eclipse* heats rather than burns tobacco, but is designed somewhat differently.<sup>3</sup> RJR has been conducting consumer tests of *Eclipse* in eight different American cities, including Buffalo, New York.<sup>2</sup>

One week after the *New York Times* story on *Eclipse*, we undertook an informal mall-intercept survey to determine consumer awareness of and interest in trying the "smokeless cigarette". We were curious to see how smokers perceived this product, and were interested to see if non-smokers might be induced to try smoking *Eclipse*.

Survey respondents were recruited by asking individuals at three shopping malls in Buffalo to participate in a 5 minute interview on cigarette smoking. Overall, interviews were completed with a convenience sample of 94 persons, including 26 smokers, 28 former smokers, and 40 individuals who had never smoked. Only two individuals who were approached to be interviewed refused participation in the survey. Because we were not sure to what extent persons would know about the *Eclipse* cigarette, interviewers were given a diagram of *Eclipse* to show to respondents. To help respondents understand the difference between *Eclipse* and a conventional cigarette, the diagram also listed several claims made about the product in the *New York Times* article (that is, reduce tar levels by 90%, eliminate 95% of secondhand smoke, produce less smoke, contain as much nicotine as a regular cigarette).<sup>2</sup>

Sixty percent of respondents stated that they had heard about the *Eclipse* cigarette. However, after showing respondents the diagram of *Eclipse*, it was apparent that most people were unfamiliar with the unique features of the product and how it differed from a conventional cigarette.

None of the never-smokers and former smokers we interviewed expressed interest in trying *Eclipse*. However, 85% of the smokers stated that they would be interested in trying the product. Respondents who expressed interest in trying *Eclipse* were asked to describe benefits they believed to be associated with the product. The most frequently mentioned benefits were less side-stream smoke and tar. All respondents were asked to describe potential problems associated with the *Eclipse* cigarette. The most often mentioned problems were addiction and disposal of the device.

The vast majority of respondents answered affirmatively to a question about whether *Eclipse* should be subjected to government testing for safety. However, when asked whether *Eclipse* should be sold alongside regular cigarettes or by prescription, 70% said the product should be available like cigarettes. Anecdotal comments received from respondents to our survey give us the impression that both smokers and non-smokers are sceptical about claims being made about the safety of *Eclipse* in relation to conventional cigarettes.

A recent study showed that about 70% of adult smokers in the United States want to stop smoking.<sup>4</sup> Most of those who do stop smoking do so out of concern for their health.

For this reason there appears to be a huge potential market for a product like *Eclipse*.

JEANNE PERLA  
TERRY PECHACEK  
Department of Social and Preventive Medicine  
SUNY at Buffalo School of Medicine  
Buffalo, New York, USA

K MICHAEL CUMMINGS  
Roswell Park Cancer Institute  
Buffalo, New York, USA

See pages 261 and 280. – ED

- 1 Marwick C, Goldsmith M. Smokeless cigarette draws plenty of heat. *JAMA* 1989; 261: 13–4.
- 2 Hiltz P. Little smoke, little tar, but still lots of nicotine. *New York Times*, 27 November 1994: A1, A38.
- 3 Pauly JL, Streck RJ, Cummings KM. US patents shed light on *Eclipse* and future cigarettes. *Tobacco Control* 1995; 4: 261–5.
- 4 US Centers for Disease Control and Prevention. Cigarette smoking among adults – United States, 1993. *MMWR* 1994; 43: 925–30.

### Global dimensions of tobacco policy research

*To the Editor* – A recent editorial in *Tobacco Control*<sup>1</sup> drew attention to the need for tobacco policy research to be accelerated. Unfortunately, with the exception of a brief mention of the initiative by Canada's International Development Research Centre, the article focused on the United States. Three critical aspects were omitted: information on tobacco policy research in other industrialised countries with substantial experience (such as Finland, Australia, and New Zealand), the implications of the effects that tobacco control policy in developed nations has on increasing exports to developing countries, and the complex problems of adapting policy developed in advanced industrialised countries to the reality of the developing world.

Experience in many developing countries shows that comprehensive measures to control tobacco developed in advanced industrialised countries need to be considerably adapted if they are to be successful. For example, making tax increases the cornerstone of reducing affordability for cigarettes is problematic in countries with low gross domestic product per capita and thereby low cigarette consumption levels. The probability of smuggling is far greater, particularly because the ability to enforce all legislation is weaker. Placing warnings on advertisements or packs is thwarted by high levels of illiteracy, multiple languages, and the powerful effects of the tobacco industry in being able to target sports, cultural, and art events for sponsorship. Intentions to reduce sales to children through bans are hampered by the reality that a significant proportion of sales in developing countries occur through informal

street-side hawkers where control is problematic and often threatens the livelihood of poor hawkers. School education programmes are problematic in countries with high drop-out rates, no chalk, and poorly educated teachers. Support for smokers to quit at primary health clinics throughout the developing world is weak where the emphasis remains on child survival strategies.

All this suggests that policy initiatives developed in the advanced industrialised countries need to be radically reviewed in terms of their timing, appropriateness, and the possible use of other important policy initiatives. For example, the role of the media, the role of political leadership, and the need to integrate tobacco control into broad aspects of health development on the one hand, and economic development on the other, need to be given far greater attention.

Finally, a focus on the global dimensions of tobacco policy research should emphasise the need for international solidarity. In much the same way as smallpox control was realised to be impossible without global control, success in tobacco control depends upon international cooperation.

The editorial mentions that the journal, "with support from the Robert Wood Johnson Foundation, is poised to assume an expanded role in the dissemination of policy research findings."<sup>1</sup> A good starting point would be for *Tobacco Control* to follow up its editorial by addressing the issue globally as suggested, and for countries, foundations, and donors – for example, those in the USA – to allocate a proportion of their funds to reducing the international spread of tobacco. This would be coherent with the World Health Organisation's emerging twin themes of solidarity and equity in public health.

DEREK YACH,  
Tobacco Control Commission for Africa and  
Community Health Research Group  
Medical Research Council  
Private Bag X 385  
Pretoria 0001

JUDITH MACKAY  
Asian Consultancy on Tobacco  
Riftswood, 9th Milestone  
DD 229, Lot 147  
Clearwater Bay Road  
Salkung, Kowloon  
Hong Kong

- 1 Davis, RM. Tobacco policy research comes of age. *Tobacco Control*, 1995; 4: 6–9.

*In reply* – Thank you for your thoughtful letter. I agree with all the points you have made.

My editorial was not meant to be a comprehensive review of tobacco policy research worldwide. It focused on the United States because of the intensity of activity in tobacco policy research in the US in recent years. This activity includes publication of hundreds of studies on tobacco policy, development of a national agenda for tobacco

policy research,<sup>1</sup> and the allocation of more than \$10 million to fund such research.<sup>2</sup>

I agree that funding agencies in the USA and other industrialised nations should make available funding for globally relevant research. As I mentioned in my editorial,<sup>2</sup> Canada's International Development Research Centre (IDRC) will direct its funding to research in developing countries. Moreover, IDRC convened a meeting in Bellagio, Italy, in June 1995, attended by 22 international organisations and individuals, to explore strategies to increase attention to tobacco control among other funding agencies. The participants invited IDRC "to lead a round-table process of consulting with other agencies, countries and experts in the preparation of a broad-based funding strategy and global partnership that responds to tobacco as a major threat to equitable and sustainable development."<sup>3</sup>

At *Tobacco Control*, we will do our part by giving serious consideration to manuscripts describing policy research in countries outside the USA, especially developing countries. Previously we have published policy research from Australia,<sup>4</sup> Canada,<sup>5</sup> Finland,<sup>6</sup> Hong Kong,<sup>7</sup> Japan,<sup>8</sup> and the United Kingdom,<sup>9</sup> as well as a few articles reporting multicountry policy research.<sup>10,11</sup> Nevertheless, a paucity of research from developing countries has been submitted to *Tobacco Control*, and we hope to receive a greater number of submissions from such countries in the future.

RONALD M DAVIS  
Editor

- 1 Chapman S, Bloch M, eds. Policy research: strategic directions. *Tobacco Control* 1992; 1 (suppl): S1–56.
- 2 Davis RM. Tobacco policy research comes of age. *Tobacco Control* 1995; 4: 6–9.
- 3 Bellagio statement on tobacco and sustainable development. Ottawa, Ontario, Canada: International Development Research Centre, June 1995.
- 4 Clarke V, White V, Hill D, Borland R. School structural and policy variables associated with student smoking. *Tobacco Control* 1994; 3: 339–46.
- 5 Moreau S, Taylor MC, Walker JD. Tobacco sales: Canadian pharmacies ignore professional recommendations. *Tobacco Control* 1992; 1: 138.
- 6 Rimpelä AH. Critical analysis of the Finnish Tobacco Act: implementation and legitimacy, 1977–89. *Tobacco Control* 1992; 1: 285–93.
- 7 Peters J, Betson CL, Hedley AJ, et al. Recognition of cigarette brand names and logos by young children in Hong Kong. *Tobacco Control* 1995; 4: 150–5.
- 8 Tominaga S. An estimate of tobacco taxes paid by children in Japan. *Tobacco Control* 1993; 2: 333.
- 9 Mindell J, Bolley M. Smoking policies for public service vehicles in Oxfordshire, United Kingdom. *Tobacco Control* 1992; 1: 268–71.
- 10 Eng TR, Emont SL, van der Vlugt TH. Support for restricting smoking at workplaces in developing countries: a survey of Peace Corps staff. *Tobacco Control* 1992; 1: 13–18.
- 11 Vogel D, Kagan RA, Kessler T. Political culture and tobacco control: an international comparison. *Tobacco Control* 1993; 2: 317–26.